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As California's population continues to expand and the state's economy is making adjacent regions ever more reliant on one another, the artificial

boundaries that divide traditional regions from

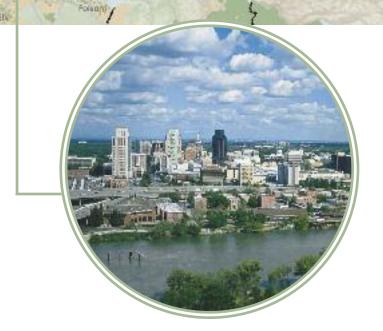
one another are proving to be increasingly

irrelevant. The "real world" of housing markets, employers, goods movement
— and even environmental realities such as air pollution — pay little attention to where one region stops and another starts as the boundaries have been traditionally defined. More

recently the growing interdependence of

neighboring regions has led to the emergence of so-called "megaregions"

— super-regions that encompass multiple metropolitan areas.



As the organization America 2050 explains:

Sacramento:

Sacramento

". .the forces of sprawl and lengthening commutes between the coast and central valley in Northern California — with negative impacts in both regions — highlight the fact that growth in California has outgrown the "metropolitan" approach. However resistant the regions may be to a shared identity, the need for a planning process that includes a much larger area is underscored by the spillover growth that is threatening the quality of life and the environment in Northern California."

Rocklin ...



The growing economic relationship between the San Francisco Bay Area and the Sacramento region has started to suggest the emergence of just such a "megaregion" over the last two decades. Yet as this interdependence between the two regions has grown, the ability of governmental agencies in each region to understand, predict and coordinate planning efforts related to transportation, air quality and growth has been woefully inadequate. Planning agencies responsible for growth and transportation currently have very little ability to "see" beyond their traditional regional boundaries. There are numerous problems associated with this inability to plan and

coordinate at a megaregional scale, including:

 understanding or agreement on how land use decisions in one region will effect travel patterns in the other,

minimal capacity to accurately forecast
— and thus plan for — future
interregional travel and goods movement
demand,

a diminished ability to forecast greenhouse gas impacts from different growth patterns that may show a greater "benefit" from minimizing development without accounting for the potential for spillover growth in surrounding regions, and

missed opportunities to secure new funding for transportation corridors that provide important interregional travel benefits

In 2006, a group of planning agencies along the I-80/Capitol Corridor launched a new interregional study focused on both the freeway and rail corridor. The study encompassed Solano, Yolo, Sacramento and Placer counties — and as such took an important "megaregional" perspective on land use and transportation. The goals of the study were:

- To promote a better understanding of transportation and air quality impacts of smart growth planning for a heavily traveled corridor;
- To build a stronger link between local plans, interregional forecasts and smart growth planning;
- To coordinate future transportation investments and land use planning;
- To improve and coordinate growth forecasts for both regions;
- To develop a model for interregional cooperation that could assist similar efforts statewide.

The study was guided by an interregional steering committee comprised of staff from the regional agencies, Caltrans, regional air districts, and local governments along the corridor, along with representatives from economic, equity and environmental interests. This report documents the study findings and makes important recommendations for improving interregional planning and coordination that are relevant for the many interregional corridors that connect metropolitan areas throughout the state of California. The findings and recommendations from this study also take on even greater significance given the passage of AB32 (the California Global Warming Solutions Act of 2006) and SB375, the latter of which will require regions to work together to develop more accurate interregional travel forecasts.

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I. EXISTING CONDITIONS AND FUTURE FORECASTS

1.1 Demographic Forecasts

In the Sacramento region, demographic projections are developed by the Sacramento Area Council of Governments (SACOG). While SACOG had developed "trends-based" demographic projections — like most other regional planning agencies — up until the early 2000s, officials in the region were growing increasingly dissatisfied with the implications of "business as usual" growth, particularly future modeling forecasts that predicted increasingly dispersed employment patterns, longer commutes and a significant loss of open space.

In 2004, and after several years of intensive outreach and public input, SACOG adopted an alternative growth scenario — known as 'Blueprint' — for the six county region that forecast considerable changes from the traditional approach to development. Under Blueprint, SACOG is projecting changes that pull much of the anticipated growth in housing and employment away from the edges of the region and back into the urbanized areas. Most new growth that does occur on the edges will likely consist of mixed use, providing a better jobs/housing balance right from the start.

Sacramento County will see more housing growth in the City of Sacramento and in the urbanized unincorporated area. Employment growth will be less concentrated in the downtown and Rancho Cordova jobs centers and more evenly distributed among the various jurisdictions. Placer County will see less housing growth on the periphery and more within jurisdictions. The unincorporated part of the County west of Roseville will see significant but balanced growth in both housing and employment with less reliance on the central Roseville jobs center. Yolo County retains much of its rural character due to slow growth policies, adoption of growth boundaries, and exceptionally fertile farmland. Total growth projected for the county remains about the same, but is redistributed among the jurisdictions.

In the Bay Area, land use planning and transportation responsibilities are split between two regional planning agencies. The Association of Bay Area Governments (ABAG) serves as the Council of Governments for the nine-county Bay Area and assumes responsibility for land use coordination, housing, demographic and economic forecasts among many other regional planning responsibilities. The Metropolitan Transportation Commission (MTC) serves as the Metropolitan Planning Organization for the nine-county Bay Area and assumes responsibility for transportation planning, financing and coordination.

ABAG has published biennial demographic projections for the San Francisco Bay Area since the early 1970s. Prior to Projections 2003, ABAG's projections were "base case" forecasts predicated in part on historic land use trends and existing local development policies contained in city and county general plans. Starting with Projections 2003, ABAG began publishing policy-based projections. The first policy-based Projections in 2003 assumed the following:

FPO

- Local smart growth policies show results beginning in 2010
- More development occurring in central cities and older suburbs
- Greater support for public transit, walking and bicycling



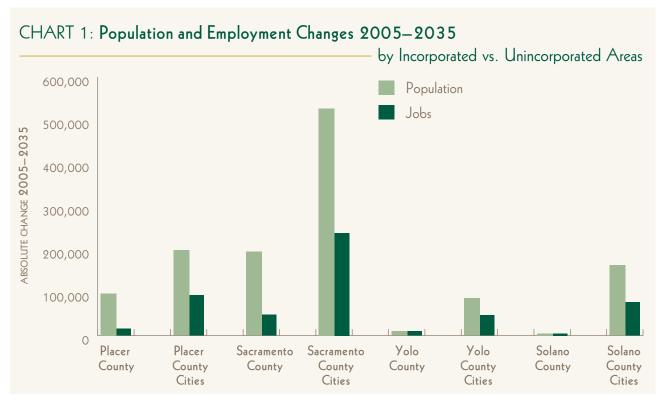
Increases in the assumed level of housing production from 2010 to 2030

While Projections 2003 lowered the number of forecast jobs by 2030 and increased housing supply, the forecast still fell short of achieving a regional jobs-housing balance. The subsequent Regional Transportation Plan (RTP) prepared by MTC in 2005 forecast an increase of 220,000 incommuters to the Bay Area from surrounding counties by 2030.

For Solano County, ABAG initially projected considerably more household growth in the county's southern cities under the policy-based Projections 2003 compared to Projections 2002. However, ABAG's most recent Projections 2007 has pulled back some of these more aggressive assumptions regarding future growth for Vallejo due to city staff concerns over where and how increases in development could be accommodated.

While the location of future growth within Solano County has trended away from the initial south county emphasis under Projections 2003, the more recent Projections forecasts have continued to improve the future jobs-housing balance for the county overall. In Projections 2007, Solano County is projected

to have 16,840 fewer households in 2030 than was forecast previously under Projections 2002 and an additional 11,940 jobs. Despite this trend, however, Solano County will likely continue to have an excess of employed residents vs. jobs through 2030—and will continue to have a significant portion of its jobs held by commuters from surrounding counties—thus continuing the current trend of requiring many of its employed residents to commute elsewhere for work.





1.2 Existing Travel Patterns and Future Forecasts

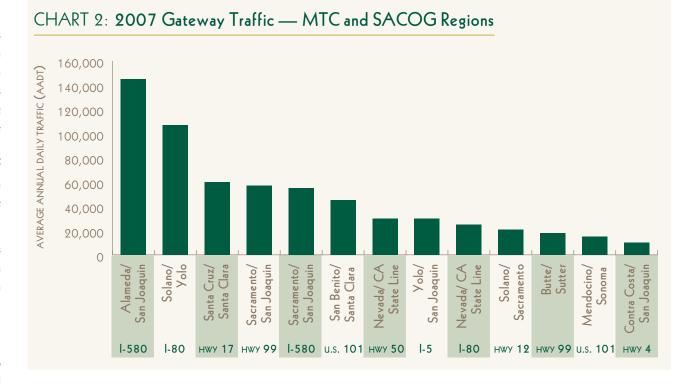
Existing Travel Patterns

The I-80 gateway between Sacramento and the Bay Area is currently the second busiest interregional gateway in northern California behind I-580 (the Altamont Pass between Alameda and San Joaquin counties). While the I-580 gateway experiences significant congestion in the morning and evening peak commuting hours, traffic volumes at the I-80 gateway are somewhat more evenly spread throughout the day and week. This more even spread of congestion across the week may actually make the application of such innovations as High Occupancy Toll (HOT) lanes — which require significant peak hour congestion that drivers would be willing to pay to avoid — more difficult to implement.

Rail ridership on the Capitol Corridor intercity train service has grown significantly over the last decade. Carrying 1.5 million passengers per year, it is now the third busiest Amtrak corridor in the nation.

Existing Travel Models

There are a variety of existing travel models that are all used to produce future travel demand forecasts for the I-80 and Capitol Corridor. They include:



Regional travel models used by MTC and SACOG end at the jurisdictional boundaries of each region.



- The Napa-Solano Travel Model, used by the Solano Transportation Authority and significantly upgraded as a part of this study, is one of the few "interregional" travel models that covers 16 counties in both the Bay Area and Sacramento regions and reflects the current demographic forecasts for each area.
- The Statewide Travel Model (also known as the "high speed rail model") was recently upgraded to provide forecasting for the proposed statewide high speed rail network. This travel model also provides air travel and auto travel forecasts for the entire state, though to date it has been focused on geographic areas of the state where the high speed rail system is planned, particularly San Francisco to Los Angeles.

Discrepancies Among Travel Model Forecasts

Perhaps somewhat surprisingly for those not familiar with travel model forecasts, it is seldom expected among modeling experts that different travel models will produce similar forecasts. Travel models are best suited at internal comparisons of alternatives within each model

The following summary highlights the discrepancies among the different travel models:

Gateway traffic volumes at the 80/505 interchange near the Yolo/Solano border are forecast to be higher by 2030 under the SACOG model than either the Napa-Solano model or the MTC model;

- The Napa-Solano Travel Model forecasts a 55% increase in southbound traffic volumes on the Benicia Bridge (I-680) to over 16,000 peak period vehicles while the MTC model forecasts 10% growth to 13,000.
- By 2030, the Napa-Solano model forecasts a significant increase in the *incommute* from the SACOG region into Solano County along Highway 12 at the Rio Vista Bridge, while the MTC travel model shows a slight increase in the *outcommute* from Solano County into the SACOG region.

These discrepancies, while anticipated among the different models, nevertheless point to a critical need for the establishment of shared data and modeling protocols among the various agencies and highlight the importance of a single statewide travel model to provide more accurate forecasting of interregional trips.

Freight Demand Along the I-80/Capitol Corridor

Both I-80 and the Capitol Corridor are major freight corridors, handling a significant volume of goods both on the highway and along the rail corridor related in large part to the Port of Oakland. Unfortunately, very little detailed data exists on current interregional goods movement flows, and existing travel models are poorly equipped to forecast freight demand into the future. Notwithstanding these constraints, it is possible to offer general conclusions regarding current and future goods movement patterns along the corridor:

Most of the inbound and outbound shipments to and from the counties that encompass the I-80 corridor, come from and go to other cities in the San Francisco and Sacramento regions. This means that the I-80 freeway corridor serves mainly to distribute goods that are locally consumed as well as produced regionally or brought in bulk from national or international markets to central Bay Area facilities (e.g. Port of Oakland). The main mode to transport goods is truck followed by rail in terms of both tonnage and value, with the truck mode representing around 70 percent of total shipments, while the rail mode accounting for almost 4 percent of total shipments.



The Port of Oakland, a major trip generator and trip attractor along the I-80 Corridor, is expected to double its current 2.3 million TEU by 2012 and quadruple them by 2020. Such growth will necessarily impact ground transportation of both truck and rail modes. Based on ITMS forecasts, truck and rail modes are forecasted to increase in the next ten

years — 43 and 25 percent for inbound shipments, and 28 and 26 percent for

outbound shipments.

At present, the Ports of Oakland and Sacramento have set up plans to strengthen their relationship with the purpose of improving goods movement, which includes developing more than 220 acres of land available for freight related activities in the Port of Sacramento.



- Given the expected increase of rail shipments along the I-80 corridor, expanded freight rail facilities will be required. As such, acquisition of right-of-way may be necessary. Expanded freight rail operations could affect the capacity for expanding passenger service.
- Rail traffic for both freight and passenger is already at capacity. There are a number of relatively minor fixes to improve conditions where current congestion is problematic. However, an ultimate solution would be to create a new alignment crossing the Carquinez Strait in the vicinity of Interstate 680, at the same elevation as the highway and following the freeway to Cordelia.



II. ALTERNATE FUTURES: THE IMPLICATION OF DIFFERENT CORRIDOR GROWTH PATTERNS

2.1 Defining Alternative Land Use Scenarios

One of the key tasks of this study was to investigate the transportation impacts of alternative growth scenarios from an interregional perspective. As described in section 1, both the Bay Area and the Sacramento region are pursuing their own smart growth strategies that have started to shift growth projections away from the edge of both regions. This policy-based forecast is known as "Blueprint" in the SACOG region and "policy-based Projections" in ABAG's nine-county Bay Area. Both policy-based forecasts have lowered overall growth projections for Yolo and Solano counties compared to prior trends-based forecasts. Both have also shifted the geographic emphasis of the growth to southern Solano County (Fairfield/Vallejo) in the ABAG region and eastern Yolo County (West Sacramento) in the SACOG region. Under SACOG's Blueprint, the suburbs east of Sacramento (Roseville etc.) also accommodate more of the region's future growth with an emphasis on jobs-housing balance.

For the purposes of this study, existing smart growth projections — the policy-based projections for both regions noted above — were first modeled to establish baseline travel demand forecasts. Then three alternative interregional land use scenarios were developed for testing through the statewide travel model. These alternative land use scenarios were developed as follows:

Scenario 1: faster and more decentralized growth at the edge of the two regions — in northern Solano County and western Yolo County. Northern Solano County "faster growth" projections were developed emphasizing robust growth at the edges of Vacaville and Dixon. Yolo County "faster growth" projections were developed by SACOG staff based on Blueprint assuming Yolo County's 2050 Blueprint forecast was realized by 2035.

- Scenario 2: faster growth at the core of the regions southern Solano County, the City of Sacramento and its eastern suburbs but with an emphasis on more decentralized growth patterns. This scenario assumes minimal infill and transit-oriented development.
- Scenario 3: faster growth at the core of the two regions (downtown Sacramento and Vallejo) with an emphasis on infill development and growth around transit hubs, such as the Capitol Corridor, at these locations.

It should be noted that all three land use alternatives were also modeled using the upgraded Solano-Napa travel model. A fourth land use scenario was also developed specifically for Solano County that achieved a countywide jobs-housing balance by 2035. Those results — while outside the original scope of this interregional study — are summarized in the following table.

2 Modeling Results — Statewide Travel Model

The Baseline policy-based forecasts and the three alternative land use scenarios — all modeled for 2030 — were analyzed for both travel demand and air quality implications using the statewide travel model. The results are summarized below and in Table 2. More detailed results are available in the appendix beginning with table Y. In general terms, the existing blueprint forecasts for all four counties on the I-80/Capitol Corridor performed better than any of the three land use alternatives.



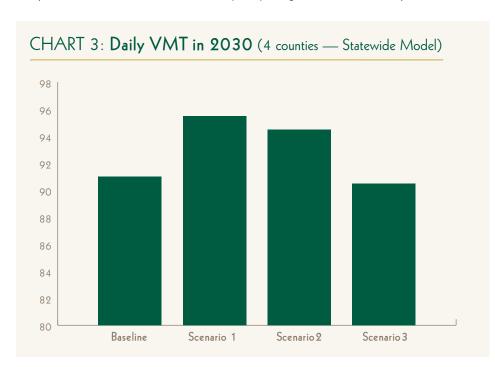
TABLE 1: Year 2030 Total Households and Total Population, by Scenario

County	Blueprints/ Baseline	Alt 1	Alt 2	Alt 3
	Daseille	7 (11. 1	7 (It 2	7 (11. 3
Households South Solano	124,430	110,059	131,985	131,748
North Solano	63,860	83,370	61,442	61,683
Yolo	97,554	131,365	76,243	76,243
Sacramento	703,533	709,443	696,581	764,478
Placer	203,339	168,306	238,469	188,691
Total Employment South Solano	153,824	132,779	156,867	157,798
North Solano	61,175	73,357	49,274	48,337
Yolo	134,940	202,572	106,389	106,378
Sacramento	914,429	882,551	837,405	924,554
Placer	231,639	175,940	315,137	241,007
Percent Change South Solano		-12%	+6%	+6%
North Solano		+31%	-4%	-4%
Yolo		26%	-27%	-27%
Sacramento		-6%	-7%	2%
Placer		-23%	10%	-13%
South Solano		+14%	+2%	+3%
North Solano		+20%	-20%	-20%
Yolo		+41%	-26%	-26%
Sacramento		-10%	-14%	-5%
Placer		-29%	27%	-3%



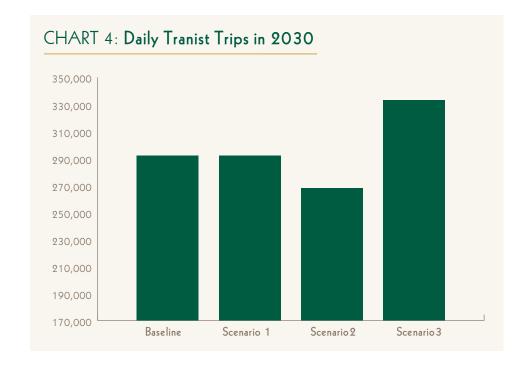
Auto Travel

While the total number of daily person-trips remained relatively constant throughout the three land use scenarios, Scenario 3 (faster core growth in southern Solano County, Sacramento and its eastern suburbs emphasizing infill locations and transit-oriented development) produced the least amount of daily Vehicle Miles Traveled (VMT) — even less than the baseline blueprint forecasts. Scenario 3 also produced fewer Vehicle Hours of Travel (VHT) though not less than the blueprint.

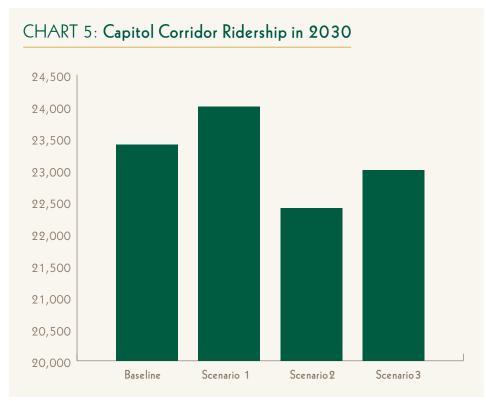


Transit Ridership

Linked transit trips for the county-to-county interchanges are shown in the chart below. Linked trips are the metric used by the Federal Transit Administration in New Starts projects (used to calculated net new transit riders). Linked transit are summed to the person level, and do not add transfers. Transit trips were highest in Scenario 3, suggesting increased development in infill locations and around transit and rail hubs can attract a greater share of travelers in the corridor.







Capitol Corridor Ridership

The chart below shows Capitol Corridor ridership within the Corridor (totals include all stations from Sacramento to San Jose). Interestingly, total system ridership is fairly stable across alternatives. At first review, this result appears somewhat counter-intuitive. However, upon reflection, it does make sense that Capitol Corridor ridership is relatively unaffected by the demographic changes in the scenarios.

For the most part, Capitol Corridors riders are not traveling between Solano, Yolo, Sacramento, and Placer Counties (though some riders certainly do have destinations at the Sacramento and Davis Stations). Most riders are traveling longer distances to San Francisco, Oakland, Berkeley, Emeryville, and even Silicon Valley. It should not surprise that increasing employment in Vallejo or Roseville would not have a major impact on Capitol Corridor ridership.

In addition, the infill/TOD alternative (Scenario 3) adds housing and employment growth in the centers of each region (downtown Sacramento and central

Vallejo), but not necessarily around Capitol Corridor stations. Vallejo, in fact, has no Capitol Corridor station. It should therefore be no surprise that Scenario 1, with its growth in northern Solano County and western Yolo County would produce more Capitol Corridor ridership than Scenario 3. For example, growth in Davis, Dixon and Vacaville should produce more Capitol Corridor ridership through the Davis and Suisun/Fairfield stations than growth in Vallejo would.



TABLE 2: I-80 Modeling Results for 2030 Statewide Travel Model

	Blueprints/ Baseline	Alt 1	Alt 2	Alt 3
Daily Vehicle Miles Traveled (VMT)	91,068,000	95,507,000	94,788,000	90,399,000
Daily Vehicle Hours Traveled (VHT)	3,761,000	4,008,000	3,993,000	3,819,000
Daily Person Trips	15,403,051	14,389,890	14,176,104	14,340,683
Daily Transit Trips	293,843	292,929	264,292	329,245
Capitol Corridor Ridership	23,400	24,000	22,400	23,000
CO2 emissions (daily tons)	52,611	54,539	53,624	52,673
NOX emissions (daily tons)	20.5	20.6	20.6	20.1
ROG emissions (daily lbs)	12,082	12,275	12,153	11,875
PM10 emissions (daily lbs)	9,722	10,060	9,900	9,714
PM2.5 emissions (daily lbs)	6,966	7,187	7,225	7,033



III. FINDINGS AND RECOMMENDATIONS

3.1 Key Study Findings

The analysis of the demographic and travel forecasting scenarios for the I-80/Capitol Corridor reveal the following key findings:

 Smart growth efforts (or regional "blueprints") in both the Bay Area and the Sacramento region that emphasize a shift

in growth away from the edge of each region have potentially significant benefits for both transportation and air quality according to the modeling forecasts conducted for this study.

- 2. Regional policy-based projections and lower housing forecasts at the "edge" of the two regions in both Solano and Yolo counties bode well for dampening the increase in travel demand along I-80 between the two regions compared to previous "trends-based" forecasts only in as much as local land use plans and policies are supportive.
- 3. While newer policy-based "blueprint" forecasts for the edge of the two regions are seemingly compatible, this can be attributed more to coincidence than coordination. Before this study, there was historically very little coordination of demographic or travel forecasts for the two regions.

- 4. Since regional travel models used by both MTC and SACOG stop at existing regional boundaries, interregional commute forecasts are better addressed through the statewide travel model. However all the travel demand models even the more localized Solano-Napa travel model are significantly constrained in their sensitivity to changes in land use.
- 5. The artificial boundary between the Bay Area and Sacramento doesn't hinder just travel and growth forecasting. Even Caltrans the California State Department of Transportation responsible for interregional transportation planning and investments is organized along a 'district' model that follows the same regional boundaries as MTC/ABAG and SACOG. 'Corridor System Management Plans' being prepared by Caltrans for the I-80 corridor offer a significant opportunity for an interregional approach to corridor planning but are proceeding on separate schedules based on each regional Caltrans district.
- 6. The lack of interregional coordination has historically put the I-80/Capitol Corridor at a competitive disadvantage for securing financing for transportation projects and programs. Two exceptions are notable and present a model for overcoming the constraints of existing regional boundaries: (1) the Capitol Corridor Joint Powers Authority (CCJPA) has governed the intercity rail service from Sacramento to San Jose since 1998. The CCJPA has succeeded in securing state financing to significantly increase the frequency of train service on the corridor to sixteen round trips per day; (2) the availability of the state Trade Corridor Improvement Funds (TCIF) through Proposition 1B required an unprecedented level of cooperation across the corridor. This cooperation resulted in the awarding of \$825 million in TCIF funds by the California Transportation Commission in April 2008.



3.2 Interregional Summit

On April 10, 2008, the study co-sponsors, Caltrans and UC Davis hosted an interregional summit to discuss the study's draft findings and recommendations. After presentations from

several state and national experts on megaregions, intergovernmental coordination and transportation planning, draft study recommendations were presented to and discussed by a dozen breakout groups. Their comments and suggestions were reported back to the broader summit participants and subsequently discussed by a closing panel of elected officials from both regions. Feedback from breakout groups has been incorporated into the



3.3 Recommendations

final study recommendations that follow.

1. Invest in significant upgrades to the California Statewide Travel Model and regional travel models, including land use forecasting models

The statewide travel model was upgraded as part of a recent analysis of the proposed High Speed Rail system in California. That model was used as part of the interregional travel forecasting in this study, and will likely prove to be an increasingly critical tool for forecasting interregional commuting, and interregional freight, rail and air travel. The statewide model also

provides an important opportunity for the development of future integrated models that can produce travel, economic and land use forecasts statewide. However, the statewide model needs significant improvements if it is to serve as a useful tool for both Caltrans and local and regional planning agencies. The state and regional planning agencies need to pledge critical resources towards upgrading and maintaining the model.

In addition, the following specific steps are also recommended as follow up tasks for this study:

- Include model enhancements laid out in Caltrans Office of Transportation Systems Information Strategic Model Improvement Program, incudiing improvements to the software interface, GIS-based transportation networks, and interregional model validation through new data collection effforts.
- Add external 'zones' to ABAG and SACOG's demographic models in the I-80 Corridor (as well as other key transportation corridors for each region).
- Revamp ABAG's regional allocation models and consider adoption and implementation
 of an integrated land use model. ABAG should look into new promising models and
 investigate the potential of implementing an integrated model such as PECAS.
- Set up a technical coordinating committee including ABAG, SACOG, the Solano Transportation Authority, MTC, Caltrans and the Yolo County Transportation District to convene and exchange projections and planning information. The coordinating committee should as its first task set up a data sharing protocol and process for updating information among SACOG, STA, ABAG, Caltrans and MTC. It is hoped that UC Davis can help play a facilitation role for this.



2. Develop an I-80/Capitol Corridor Interregional Corridor Strategic Plan

There are numerous planning documents that cover both the I-80 corridor and Capitol Corridor (Amtrak) in northern California, yet there is no overarching strategy or plan that unites both corridors and takes a truly interregional approach. Even the California Department of Transportation (Caltrans) is preparing separate Corridor System Management Plans (CSMPs) for the I-80 corridor that stop at the boundaries of each regional district rather than taking a broader, systemwide approach.

The various northern California transportation planning entities did indeed pull together a "megaregional" project list for the recent statewide Trade Corridors Improvement Fund (TCIF). While the availability of TCIF funds required an unprecedented level of interregional cooperation, it also highlighted the lack of a coordinated strategy for transportation investment beyond traditional regional boundaries. An interregional strategic plan should also include a goods movement component and detailed land use strategies developed by appropriate local governments but that help support regional and statewide transportation management goals.

3. Strengthen State Support for Regional Blueprints and Local Land Use Coordination

As demonstrated through this study, there are clear benefits to the state — in this case the state's highway, rail and transit networks — from the ongoing work underway in the regional blueprints. This initial work surrounding the blueprints will become even more important with the passage of SB375 and as the California Air Resources Board (CARB) develops the

scoping plan and implementing regulations for AB32. Funding from Caltrans to support regional blueprints should continue, but technical assistance should also be targeted towards local governments to assist their understanding of the regional and interregional transportation impacts of their local land use decisions.

4. Explore "Megaregional" Financing Mechanisms for Transportation Projects

The current system of financing transportation projects is severely broken. Solano County has tried several times to pass a local sales tax measure to fix a megaregional bottleneck — the I-80/I-680 interchange at Cordelia junction. The Capitol Corridor rail service has enjoyed tremendous increases in ridership, yet needs significant capital investments in track upgrades and expansion if it is to ever meet its true potential and handle a significant portion of interregional trips in northern California.

While politically challenging, the future of transportation finance will likely include a significant shift towards users fees (tolls, road pricing) and stronger partnerships with the private sector. New financing mechanisms should be pursued for both the I-80 and Capitol Corridor that should include serious analysis of interregional High Occupancy Toll lanes and the potential for full road pricing in the I-80 corridor that could help finance Capitol Corridor operations. In addition, stakeholders and the state legislature should investigate the potential for multicounty tax and bonding measures in order to finance critical transportation improvements that are critical to the megaregion.



5. Develop Better "Megaregional" Coordination and Governance

Emerging megaregions don't need a new form of megaregional government. But the infrastructure that links megaregions together is currently managed and financed by a patchwork quilt of public agencies that are not equipped to plan at a megaregional scale. The artificial boundary between the Sacramento region and the San Francisco Bay Area (the Yolo-Solano county border) only exists in the eyes of governmental entities, it matters not for commuters, the housing market, air quality, goods movement or the economy. This study has proposed various alternatives for strengthening coordination and governance across the corridor.

One of the more successful models for interregional governance is the Capitol Corridor Joint Powers Authority (CCJPA). A similar JPA for the I-80 corridor, or one that combines both the Capitol Corridor and the I-80 corridor to the Nevada border, should be seriously considered. The other obvious state agency to coordinate transportation investments at a megaregional scale is Caltrans. Caltrans has responsibility for interregional transportation investments, but is institutionally organized by district within regional boundaries that duplicate the service areas of other regional planning agencies.

In addition, the following specific steps are also recommended as follow up tasks for this study:

Ensure that HOV facilities, particularly for express buses serving interregional routes such
as Vacaville to Sacramento, are coordinated and continuous in all relevant long range
planning documents.

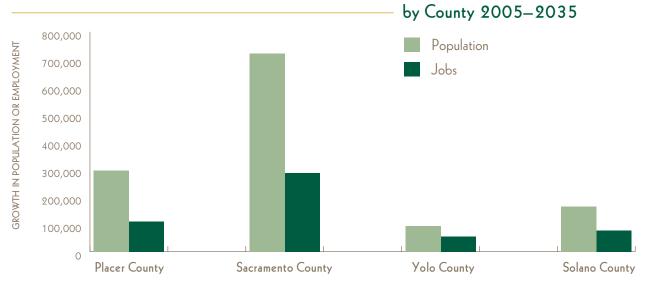
Ensure that county-level and regional long range transportation plans analyze and incorporate planned land use and transportation investments in neighboring counties.

Generally strengthen coordination and communication between Solano County and SACOG, and likewise between Yolo County and MTC/ABAG. One method of strengthening this coordination would be to make the UC Davis summit an annual or bi-annual meeting of relevant stakeholders and decisionmakers along the corridor.

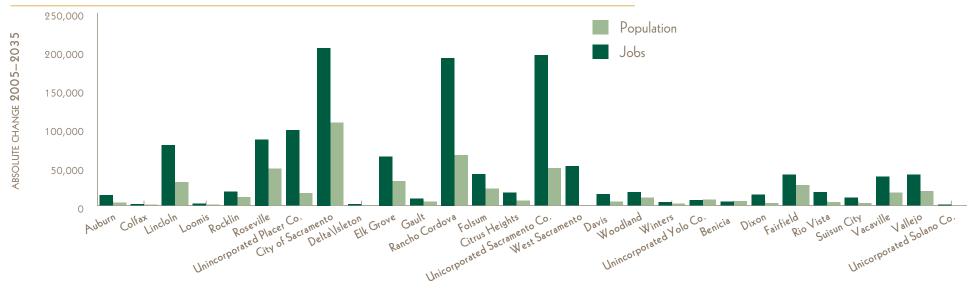
PLANNING FOR THE NORTHERN CALIFORNIA MEGAREGION

APPENDICES

APPENDIX CHART 1: I-80 Corridor Population and Employment Growth



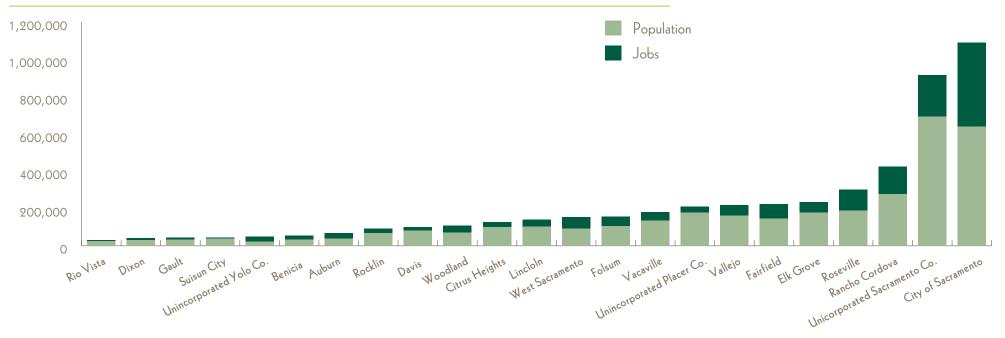
APPENDIX CHART 2: Population and Employment Growth by Juristiction 2005-2035



APPENDIX TABLE 1: Growth in Population and Employment by Jurisdiction 2005—2035

		2005			2035			
	Population	Households/D.U.*	Jobs	Population	Households/D.U.*	Jobs		
Auburn	26,670	12,170	23,663	39,776	15,566	27,422		
Colfax	3,118	1,371	1,081	4,630	1,812	1,925		
Lincoln	24,081	10,496	7,994	101,998	39,916	38,099		
Loomis	6,163	2,311	3,756	8,259	3,232	4,780		
Rocklin	50,384	19,636	13,843	68,153	26,671	24,359		
Roseville	102,955	42,538	64,874	188,607	73,810	112,474		
Unincorporated Placer County	80,146	31,227	16,439	177,586	69,497	32,426		
Placer County Total	293,517	119,749	131,650	589,009	230,504	241,485		
City of Sacramento	434,058	173,242	344,956	638,378	249,824	452,611		
Delta/Isleton	6,674	2,580	3,224	8,223	3,218	3,367		
Elk Grove	113,749	38,274	25,077	177,316	69,391	56,721		
Galt	25,008	7,905	4,690	33,766	13,214	9,877		
Rancho Cordova community	85,637	33,628	81,442	276,998	108,401	146,728		
Folsom	63,798	22,478	29,379	104,627	40,945	51,011		
Citrus Heights	84,771	34,376	18,204	101,282	39,636	24,651		
Unincorporated Sacramento County	499,918	193,246	171,530	694,584	271,820	220,009		
Sacramento County Total	1,313,614	505,729	678,502	2,035,174	796,449	964,975		
West Sacramento	41,208	15,448	30,655	92,339	36,136	60,535		
Davis	66,402	24,832	16,326	80,794	31,618	21,298		
Woodland	55,205	17,961	25,417	72,218	28,262	35,498		
Winters	7,858	2,509	1,895	12,189	4,770	4,193		
Unincorporated Yolo County	16,688	5,799	17,754	23,440	9,173	25,290		
Yolo County Total	187,361	66,549	92,047	280,979	109,959	146,814		
Benicia	27,200	10,670	15,530	32,000	12,290	20,870		
Dixon	17,500	5,640	5,840	31,300	9,940	9,110		
- airfield	106,900	35,000	50,740	146,900	47,820	77,030		
Rio Vista	7,500	3,120	2,450	25,000	9,890	6,560		
Suisun City	28,200	8,770	4,080	38,100	11,630	7,080		
Vacaville	97,200	31,590	30,710	134,300	44,040	47,110		
Vallejo	122,900	42,330	35,720	163,100	55,560	54,600		
Unincorporated Solano County	14,200	4,920	5,450	15,100	5,050	5,510		
Solano County Total	421,600	142,040	150,520	585,800	196,220	227,870		

APPENDIX CHART 3: Total Population and Jobs in 2035 — I-80 Corridor by Justisidiction



APPENDIX TABLE 2: Year 2030 Daily Person Trips by Couty-to-County Interchange

TO:	FROM: Other Bay Area*	Solano	Yolo	Sacramento	Placer	Other Sac Region	TOTAL FROM
	Other Day Area	Joiano	7010	Jacramento	Flacer	Other Sac Region	TOTALIKOW
Base Case		054.450	24.440	404.070	00.047	10.001	400.007
Other Bay Area*	100 () (254,450	31,419	101,379	22,317	19,831	429,396
Solano	109,646	1,366,627	3,606	7,972	1,483	1,197	1,490,531
Yolo	9,429	6,333	1,025,545	213,528	3,026	1,437	1,259,297
Sacramento	69,040	22,655	255,732	8,586,243	303,138	77,278	9,314,085
Placer	16,176	4,205	10,759	303,260	2,270,632	19,262	2,624,294
Other Sac. Region	12,836	3,196	17,753	171,343	80,319		285,447
Total	217,127	1,657,466	1,344,815	9,383,725	2,680,914	119,004	15,403,051
2030 Scenario 1: Fast W	/est SACOG — Northern Soland	Dispersed					
Other Bay Area*	_	234,573	44,671	97,195	17,442	19,472	413,353
Solano	140,992	1,371,037	5,135	7,422	1,101	1,157	1,526,844
Yolo	13,206	8,636	1,477,035	203,719	1,644	1,166	1,705,406
Sacramento	77,207	25,196	362,866	7,807,421	225,021	67,716	8,565,427
Placer	13,997	3,541	19,493	287,164	1,589,171	20,210	1,933,576
Other Sac. Region	12,703	3,125	39,923	146,100	43,433	_	245,284
Total	258,105	1,646,108	1,949,123	8,549,021	1,877,812	109,721	14,389,890
2030 Scenario 2: Fast E	ast SACOG Greenfield — South	ern Solano Dispersed					
Other Bay Area*	_	252,167	28,727	97,096	25,883	19,459	423,332
Solano	104,855	1,361,448	3,266	7,466	1,822	1,249	1,480,106
Yolo	7,627	5,210	768,270	144,902	2,783	197	928,989
Sacramento	76,496	24,814	253,790	7,531,811	355,485	64,052	8,306,448
Placer	19,270	4,883	16,588	278,939	2,573,724	4,922	2,898,326
Other Sac. Region	12,727	3,132	1,046	106,315	15,683	<u> </u>	138,903
Total	220,975	1,651,654	1,071,687	8,166,529	2,975,380	89,879	14,176,104
	ast SACOG Infill — Southern Sol		.,,	-,,	_,,		, ,
Other Bay Area*	_	236,590	28,019	103,506	21,622	17,773	407,510
Solano	104,004	1,368,586	3,208	8,190	1,479	1,128	1,486,595
Yolo	7,566	5,169	756,418	156,299	2,102	152	927,706
Sacramento	82,537	27,112	279,273	8,306,576	348,489	59,112	9,103,099
Placer	15,553	3,929	11,428	257,583	1,980,913	4,225	2,273,631
Other Sac. Region	11,741	2,946	1,071	108,961	17,423	7,223	142,142
Total	221,401	1,644,332	1,079,417	8,941,115	2,372,028	82,390	14,340,683
lOtdl	221,401	1,044,332	1,079,417	0,741,113	2,3/2,028	82,390	14,340,083

APPENDIX TABLE 3: Percent Change in Year 2030 Daily Person Trips by Couty-to-County Interchange

	FROM:		., .				
TO:	Other Bay Area*	Solano	Yolo	Sacramento	Placer	Other Sac Region	TOTALFROM
2030 Scenario 1: Fast W	Vest SACOG — Northern Soland	Dispersed					
Other Bay Area*		-8%	42%	-4%	-22%	-2%	-4%
Solano	29%	0%	42%	-7%	-26%	-3%	2%
Yolo	40%	36%	44%	-5%	-46%	-19%	35%
Sacramento	12%	11%	42%	-9%	-26%	-12%	-8%
Placer	-13%	-16%	81%	-5%	-30%	5%	-26%
Other Sac. Region	-1%	-2%	125%	-15%	-46%	_	-14%
Total	19%	-1%	45%	-9%	-30%	-8%	-7%
2030 Scenario 2: Fast Ea	ast SACOG Greenfield — South	ern Solano Dispersed					
Other Bay Area*	_	-1%	-9%	-4%	16%	-2%	- 1%
Solano	-4%	0%	-9%	-6%	23%	4%	-1%
Yolo	-19%	-18%	-25%	-32%	-8%	-86%	-26%
Sacramento	11%	10%	-1%	-12%	17%	-17%	-11%
Placer	19%	16%	54%	-8%	13%	-74%	10%
Other Sac. Region	-1%	-2%	-94%	-38%	-80%	_	-51%
Total	2%	0%	-20%	-13%	11%	-24%	-8%
2030 Scenario 3: Fast Ed	ast SACOG Infill — Southern Sol	ano Compact					
Other Bay Area*	_	-7%	-11%	2%	-3%	-10%	-5%
Solano	-5%	0%	-11%	3%	0%	-6%	0%
Yolo	-20%	-18%	-26%	-27%	-31%	-89%	-26%
Sacramento	20%	20%	9%	-3%	15%	-24%	-2%
Placer	-4%	-7%	6%	-15%	-13%	-78%	-13%
Other Sac. Region	-9%	-8%	-94%	-36%	-78%	_	-50%
Total	2%	-1%	-20%	-5%	-12%	-31%	-7%

APPENDIX TABLE 4: Year 2030 Daily Linked Trips by Couty-to-County Interchange

TO:	FROM: Other Bay Area*	Solano	Yolo	Sacramento	Placer	Other Sac Region	TOTAL FROM
Base Case			, 5.5				1017.271.0111
Other Bay Area*	_	12,767	3,946	10,834	584	551	28,682
Solano	1,483	24,145	166	484	61	70	26,409
Yolo	853	148	14,730	10,696	1	0	26,428
Sacramento	4,301	635	3,155	185,784	1,347	75	195,296
Placer	441	118	16	3,369	11,673	0	15,618
Other Sac. Region	405	76	2	921	7	_	1,410
Total	7,483	37,889	22,014	212,087	13,673	697	293,843
2030 Scenario 1: Fast	West SACOG — Northern Solan	o Dispersed					
Other Bay Area*	_	9,884	5,977	9,955	434	532	26,782
Solano	1,406	20,798	253	439	43	63	23,002
Yolo	1,254	209	18,864	11,824	1	0	32,152
Sacramento	4,771	679	2,950	188,129	923	66	197,518
Placer	354	91	20	3,680	7,820	0	11,965
Other Sac. Region	372	68	2	1,062	6	_	1,510
Total	8,157	31,729	28,066	215,089	9,227	661	292,929
2030 Scenario 2: Fast E	ast SACOG Greenfield — South	nern Solano Dispersed					
Other Bay Area*	_	11,485	3,901	10,017	734	556	26,693
Solano	1,406	23,002	160	438	79	71	25,156
Yolo	650	111	11,601	7,112	1	0	19,475
Sacramento	4,656	657	1,902	164,959	1,669	75	173,918
Placer	495	134	8	3,076	14,025	0	17,738
Other Sac. Region	371	69	2	858	12	_	1,312
Total	7,578	35,458	17,574	186,460	16,520	702	264,292
2030 Scenario 3: Fast E	ast SACOG Infill — Southern Sc	olano Compact					
Other Bay Area*	_	10,832	3,772	11,136	601	497	26,838
Solano	2,357	30,100	157	487	62	66	33,229
Yolo	644	110	11,581	8,328	1	0	20,664
Sacramento	5,283	745	2,551	222,389	1,551	69	232,588
Placer	398	105	7	3,085	10,952	0	14,547
Other Sac. Region	327	68	2	975	7	_	1,379
Total	9,009	41,960	18,070	246,400	13,174	632	329,245

APPENDIX TABLE 5: Year 2030 Transit Shares by Couty-to-County Interchange

TO.	FROM:	C 1	V 1	C	DI		TOTAL FROM
TO:	Other Bay Area*	Solano	Yolo	Sacramento	Placer	Other Sac Region	TOTALFROM
Base Case							
Other Bay Area*	_	5.0%	12.6%	10.7%	2.6%	2.8%	6.7%
Solano	1.4%	1.8%	4.6%	6.1%	4.1%	5.8%	1.8%
Yolo	9.0%	2.3%	1.4%	5.0%	0.0%	0.0%	2.1%
Sacramento	6.2%	2.8%	1.2%	2.2%	0.4%	0.1%	2.1%
Placer	2.7%	2.8%	0.1%	1.1%	0.5%	0.0%	0.6%
Other Sac. Region	3.2%	2.4%	0.0%	0.5%	0.0%	_	0.5%
Total	3.4%	2.3%	1.6%	2.3%	0.5%	0.6%	1.9%
2030 Scenario 1: Fast \	West SACOG — Northern Solan	o Dispersed					.
Other Bay Area*	_	4.2%	13.4%	10.2%	2.5%	2.7%	6.5%
Solano	1.0%	1.5%	4.9%	5.9%	3.9%	5.4%	1.5%
Yolo	9.5%	2.4%	1.3%	5.8%	0.1%	0.0%	1.9%
Sacramento	6.2%	2.7%	0.8%	2.4%	0.4%	0.1%	2.3%
Placer	2.5%	2.6%	0.1%	1.3%	0.5%	0.0%	0.6%
Other Sac. Region	2.9%	2.2%	0.0%	0.7%	0.0%	_	0.6%
Total	3.2%	1.9%	1.4%	2.5%	0.5%	0.6%	2.0%
2030 Scenario 2: Fast l	East SACOG Greenfield — South	ern Solano Dispersed					'
Other Bay Area*	_	4.6%	13.6%	10.3%	2.8%	2.9%	6.3%
Solano	1.3%	1.7%	4.9%	5.9%	4.3%	5.7%	1.7%
Yolo	8.5%	2.1%	1.5%	4.9%	0.0%	0.0%	2.1%
Sacramento	6.1%	2.6%	0.7%	2.2%	0.5%	0.1%	2.1%
Placer	2.6%	2.7%	0.0%	1.1%	0.5%	0.0%	0.6%
Other Sac. Region	2.9%	2.2%	0.2%	0.8%	0.1%	_	0.9%
Total	3.4%	2.1%	1.6%	2.3%	0.6%	0.8%	1.9%
2030 Scenario 3: Fast l	East SACOG Infill — Southern So	lano Compact					
Other Bay Area*	_	4.6%	13.5%	10.8%	2.8%	2.8%	6.6%
Solano	2.3%	2.2%	4.9%	5.9%	4.2%	5.9%	2.2%
Yolo	8.5%	2.1%	1.5%	5.3%	0.0%	0.0%	2.2%
Sacramento	6.4%	2.7%	0.9%	2.7%	0.4%	0.1%	2.6%
Placer	2.6%	2.7%	0.1%	1.2%	0.6%	0.0%	0.6%
Other Sac. Region	2.8%	2.3%	0.2%	0.9%	0.0%	_	1.0%
Total	4.1%	2.6%	1.7%	2.8%	0.6%	0.8%	2.3%
				, .			

APPENDIX TABLE 6: Year 2030 Daily Vehicle Hours of Travel and Vehicle Miles of Travel by County

	Baseli		S	Scenario 1			Scenario 3	
County	VHT	VMT	VHT	VMT	Scenai VHT	VMT	VHT	VMT
	le Hours of Travel and Vehic							
Solano	431,000	9,273,000	617,000	13,429,000	416,000	8,843,000	393,000	8,375,000
Yolo	255,000	7,162,000	423,000	11,603,000	278,000	7,784,000	271,000	7,577,000
Sacramento	2,113,000	51,322,000	2,149,000	50,935,000	2,163,000	51,030,000	2,204,000	51,939,000
Placer	962,000	23,311,000	819,000	19,540,000	1,136,000	27,131,000	951,000	22,508,000
Total	3,761,000	91,068,000	4,008,000	95,507,000	3,993,000	94,788,000	3,819,000	90,399,000
% Change from Baseline								
Solano			43%	45%	-3%	-5%	-9%	-10%
Yolo			66%	62%	9%	9%	6%	6%
Sacramento			2%	-1%	2%	-1%	4%	1%
Placer			-15%	-16%	18%	16%	-1%	-3%
Total			7%	5%	6%	4%	2%	- 1%
Intra-County Only								
Solano	147,000	2,910,000	160,000	3,323,000	150,000	3,014,000	145,000	2,883,000
Yolo	78,000	2,025,000	170,000	4,248,000	96,000	2,457,000	95,000	2,434,000
Sacramento	1,369,000	30,992,000	1,496,000	32,977,000	1,502,000	32,916,000	1,563,000	34,412,000
Placer	463,000	10,109,000	439,000	9,461,000	677,000	14,889,000	533,000	11,549,000
Total	2,057,000	46,036,000	2,265,000	50,009,000	2,425,000	53,276,000	2,336,000	51,278,000
% Intra-County Change	from Baseline							
Solano			9%	14%	2%	4%	-1%	-1%
Yolo			118%	110%	23%	21%	22%	20%
Sacramento			9%	6%	10%	6%	14%	11%
Placer			-5%	-6%	46%	47%	15%	14%
Total			10%	9%	18%	16%	14%	11%
Percent Intra-County								
Solano	34%	31%	33%	31%	36%	34%	37%	34%
Yolo	31%	28%	40%	37%	35%	32%	35%	32%
Sacramento	65%	60%	70%	65%	69%	65%	71%	66%
Placer	48%	43%	54%	48%	60%	55%	56%	51%
Total	55%	5 1%	58%	54%	61%	56%	61%	57%

$\label{eq:appendix} \mbox{APPENDIX TABLE 7: Year 2030 Carbon Dioxide (CO_2) Emissions, Daily Tons}$

	No Build	Scenario 1	Scenario 2	Scenario 3
Solano	4,905	5,850	5,181	5,068
Yolo	4,196	6,397	3,609	3,486
Sacramento	32,307	32,469	31,189	32,993
Placer	11,203	9,823	13,646	11,127
Corridor	52,611	54,539	53,624	52,673
Percent Change				
Solano		19%	6%	3%
Yolo		52%	-14%	-17%
Sacramento		1%	-3%	2%
Placer		-12%	22%	-1%
Corridor		4%	-2%	-2%

APPENDIX TABLE 8: Year 2030 Nitrous Oxides (COX) Emissions, Daily Tons

	No Build	Scenario 1	Scenario 2	Scenario 3
Solano	1.664	1.885	1.658	1.619
Yolo	1.422	2.039	1.095	1.053
Sacramento	12.644	12.707	12.206	12.912
Placer	4.806	4.001	5.671	4.533
Corridor	20.536	20.632	20.630	20.118
Percent Change				
Solano		13%	0%	3%
Yolo		43%	-23%	-26%
Sacramento		1%	-3%	2%
Placer		-17%	18%	-6%
Corridor		0%	0%	-2%

APPENDIX TABLE 9: Year 2030 Reactive Organic Gases (ROG) Emissions, Daily Pounds

	No Build	No Build Scenario 1 Scenario 2		Scenario 3	
Solano	816	970	813	794	
Yolo	728	1,213	561	539	
Sacramento	7,716	7,755	7,449	7,880	
Placer	2,822	2,337	3,330	2,662	
Corridor	12,082	12,275	12,153	11,875	
Percent Change					
Solano		13%	0%	-3%	
Yolo		43%	-23%	-26%	
Sacramento		1%	-3%	2%	
Placer		-17%	18%	-6%	
Corridor		2%	1%	-2%	

${\sf APPENDIX\,TABLE\,10:\,Fine\,Particulate\,Matter} < 10\,{\sf micrometers\,(PM_{10})\,Emissions,\,Daily\,Pounds}$

	No Build	Scenario 1	Scenario 2	Scenario 3	
Solano	904	1,080	964		
Yolo	772	1,168	656	634	
Sacramento	5,952	5,982	5,746	6,078	
Placer	2,094	1,830	2,534	2,059	
Corridor	9,722	10,060	9,900	9,714	
Percent Change					
Solano		20%	7%	4%	
Yolo		51%	-15%	-18%	
Sacramento		1%	-3%	2%	
Placer		-13%	21%	-2%	
Corridor		3%	2%	0%	

$\label{eq:appendix} \textit{APPENDIX TABLE 11: Fine Particulate Matter} < 2.5 \ \textit{micrometers (PM}_{25}) \ \textit{Emissions, Daily Pounds}$

	No Build	Scenario 1	Scenario 2	Scenario 3	
Solano	551	661	587		
Yolo	463	772	468	454	
Sacramento	4,409	4,431	4,256	4,503	
Placer	1,543	1,323	1,913	1,502	
Corridor	6,966	7,187	7,225	7,033	
Percent Change					
Solano		20%	7%	4%	
Yolo		67%	1%	-2%	
Sacramento		1%	-3%	2%	
Placer		-14%	24%	-3%	
Corridor		3%	4%	1%	

APPENDIX TABLE 12: Year 2030 Capitol Corridor Ridership by Corridor Station

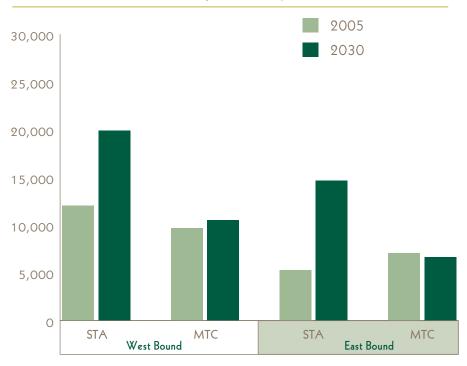
Station*	Baseline	Scenario 1	Scenario 2	Scenario 3	Percent Change from Baseline		
					Scenario 1	Scenario 2	Scenario 3
Auburn	100	100	100	100	2%	1%	6%
Rocklin	300	300	400	300	-22%	29%	-13%
Roseville	1,200	1,100	1,200	1,300	-6%	2%	4%
Sacramento	7,700	7,000	7,400	7,700	-9%	-4%	0%
Davis	2,100	3,200	1,900	1,900	54%	-6%	-6%
Suisun City	800	900	800	900	7%	0%	4%
Contra Costa	3,300	2,900	3,200	2,800	-13%	-1%	-13%
Alameda	6,400	6,800	6,100	6,500	7%	-3%	2%
Santa Clara	1,500	1,700	1,300	1,500	16%	-6%	11%
System Total	23,400	24,000	22,400	23,000	2%	-3%	-1%

^{*} Stations outside of study area are summed to County.

APPENDIX CHART 4: Benicia Bridge — 2 Hour AM Peak



APPENDIX CHART 5: Carquinez Bridge — 2 Hour AM Peak



Inside back Cover — maybe list credits (Roster?) and/or partners? see "Smarter Choices" for format









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